ABSTRACT OF THE DISCLOSURE

This is a semiconductor power module provided with: a ceramic substrate; a metallic plate bonded to a surface of this substrate; a cylindrical metallic flange which is hermetically bonded to a surface of substrate or the metallic plate; a ceramic housing for hermetically sealing an opening of the metallic flange; and at least one or more semiconductor chips soldered to the metallic plate. The metallic flange is made of metal with a low thermal expansion coefficient. A hermetically sealed container is created by welding the metallic flange, the ceramic substrate and the housing with silver brazing. Moreover, external collector, emitter and gate electrodes are bonded on the housing by using the silver brazing. The collector, emitter and gate conductive pillars are respectively connected to the external collector, emitter and gate electrodes with calking. Thus, this hermetically sealed container is strong in mechanical strength and high in explosion-proof durability and excellent in moisture resistance. And this semiconductor power module has a high TFT reliability and a high TCT reliability. Moreover, a power cycle durability is larger since the emitter pedals are pressure-contacted to the emitter electrode pads disposed on the semiconductor chip via the metallic hemispheres so as to implement a large conductive capacity.